



\$1644

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Examining Operations



27162

PATENT TRADEMARK OFFICE

Applicant(s): Pittenger, et al.
Serial No: 09/319,521 Art Unit: 1644
Filed: June 4, 1999 Examiner: Decloux
Title: Improved Chondrogenic Differentiation of Human Mesenchymal Stem Cells

Docket No.: 640100-326 Customer No.: 27162

TRANSMITTAL LETTER

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TECH CENTER 1600/2900

Commissioner for Patents
Washington, D.C. 20231

SIR:

Enclosed please find the following:

1. Amendment in response to the Office Action dated November 4, 2002;
2. Check No. 9381 in the amount of \$360.00 (for extra claims); and
3. A self-addressed, postage paid, return receipt postcard, date stamp and return of which is respectfully requested.

The Commissioner is authorized to charge payment of any additional filing fees required under 37 C.F.R. 1.16 associated with this communication or credit any overpayment to Deposit **Account No. 03-0678**.

FIRST CLASS CERTIFICATE

I hereby certify that this correspondence is being deposited today with the U.S. Postal Service as First Class Mail in an envelope addressed to:

Commissioner for Patents
Washington, D.C. 20231

Raymond J. Lillie 1/28/03
Raymond J. Lillie, Esq. Date

Respectfully submitted,

Raymond J. Lillie
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

17/D
GRD
2/4/03

Application of: Pittenger, et al.
Serial No.: 09/319,521
Filed: June 4, 1999
For: Improved Chondrogenic Differentiation of
Human Mesenchymal Stem Cells
Group: 1644
Examiner: Decloux

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Commissioner of Patents and Trademarks
Washington, D.C. 20231

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AMENDMENT

SIR:

In response to the Office Action dated November 4, 2002,
kindly amend the above-identified application as follows:

IN THE CLAIMS:

Add the following claims:

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80. A process for producing chondrocytes from mesenchymal stem cells by culturing mesenchymal stem cells in a chemically defined serum-free medium *in vitro* wherein the mesenchymal stem cells are associated in a three-dimensional format, and wherein said chemically defined serum-free medium comprises (1) a chemically defined minimum essential medium; (2) ascorbate or an analog thereof; (3) an iron source; (4) insulin or an insulin-like growth factor; (5) at least one chondroinductive agent or factor, wherein said at least one chondroinductive agent or factor comprises TGF- β 3; and (6) a simple sugar, said simple